

## AMENDMENTS

### Amendments to the Claims

This listing of claims will replace all prior listings of claims in the application:

#### Listing of Claims:

1. (Currently amended) A MHC Class I-restricted epitope peptide derived from survivin, comprising ~~an~~ ~~the~~ epitope peptide of selected from SEQ ID NO: 1, SEQ ID NO: 4, SEQ ID NO: 5 and SEQ ID NO: 14.

Claims 2-11. (Cancelled)

12. (Original) A peptide according to claim 1 comprising at the most 20 amino acid residues.

13. (Original) A peptide according to claim 12 that comprises at the most 10 amino acid residues.

Claims 14-16. (Cancelled)

17. (Original) A peptide according to claim 1, which is derived from a native sequence of survivin by substituting, deleting or adding at least one amino acid residue.

18. (Withdrawn) A peptide according to any of the preceding claims, which is phosphorylated.

19. (Withdrawn) A peptide according to claim 18, which comprises Thr34 of the native survivin disclosed in US 6,45,23.

20. (Currently amended) A peptide according to claim 1 comprising, for ~~each~~  
~~specific the following~~ HLA allele, any of the amino acid residues as indicated in the following  
table and corresponding to the amino acid positions in SEQ ID NO: 1, SEQ ID NO: 4 and SEQ  
ID NO:5:

HLA allele	Position 1	Position 2	Position 3	Position 5	Position 6	Position 7	C-terminal
HLA-A2		L, M			V		L,V

21. (Currently amended) A peptide according to ~~claims~~ claim 1 that is capable of  
eliciting INF- $\gamma$ -producing cells in a PBL population of a cancer patient at a frequency of at least  
10 per  $10^4$  PBLs.

22. (Original) A peptide according to claim 1, which is capable of eliciting INF- $\gamma$  -  
producing cells in a PBL population of a patient having a cancer disease where survivin is  
expressed.

23. (Original) A peptide according to claim 22 where the cancer disease is selected  
from the group consisting of a haematopoietic malignancy including chronic lymphatic leukemia  
and chronic myeloid leukemia, melanoma, breast cancer, cervix cancer, ovary cancer, lung  
cancer, colon cancer, pancreas cancer and prostate cancer.

24. (Original) A peptide according to claim 1, which is capable of eliciting INF- $\gamma$  -  
producing cells in a PBL population of a patient having a cancer disease, said INF- $\gamma$  -producing  
cells having cytotoxic effect against survivin expressing cells of a cancer cell line, including a  
cell line selected from the group consisting of the breast cancer cell line MCF-7 and the  
melanoma cell line FM3.

25. (Original) A pharmaceutical composition comprising the peptide according to claim 1.

26. (Cancelled)

27. (Cancelled)

28. (Currently amended) A composition according to claim 25, which is an immunogenic composition a-vaccine capable of eliciting an immune response against a cancer disease.

29. (Withdrawn) A composition according to claim 25, further comprising an immunogenic protein or peptide fragment selected from a protein or peptide fragment not belonging to or derived from the survivin protein family.

30. (Withdrawn) A composition according to claim 29, where the protein or peptide fragment not belonging to or derived from the survivin protein family is a protein, or peptide fragment hereof, involved in regulation of cell apoptosis.

31. (Withdrawn) A composition according to claim 29 where the immunogenic protein or peptide fragment selected from a protein or peptide fragment hereof not belonging to or derived from the survivin protein family is Bcl-2 or a peptide fragment hereof.

32. (Cancelled)

33. (Original) A composition according to claim 28 where the vaccine is capable of eliciting an immune response against a cancer disease where survivin is expressed.

34. (Original) A composition according to claim 33 where the cancer disease is selected from the group consisting of a haematopoietic malignancy including chronic lymphatic

leukemia and chronic myeloid leukemia, melanoma, breast cancer, cervix cancer, ovary cancer, lung cancer, colon cancer, pancreas cancer and prostate cancer.

35. (Original) A composition according to claim 33 or 34 where the vaccine elicits the production in the vaccinated subject of effector T-cells having a cytotoxic effect against the cancer cells.

36. (Previously presented) A composition for *ex vivo* or *in situ* detection of the presence in a cancer patient of survivin reactive T-cells among PBLs or in tumor tissue, the composition comprising a peptide according to claim 1.

37. (Previously presented) A diagnostic kit for *ex vivo* or *in situ* detection of the presence in a cancer patient of survivin reactive T-cells among PBLs or in tumour tissue comprising a peptide according to claim 1.

38. (Previously presented) A complex of a peptide according to claim 1 and a Class I HLA molecule or a fragment of such molecule.

39. (Original) A complex according to claim 38 which is monomeric.

40. (Original) A complex according to claim 38 which is multimeric.

41. (Withdrawn) A method of detecting in a cancer patient the presence of survivin reactive T-cells, the method comprising contacting a tumour tissue or a blood sample with a complex according to claim 38 and detecting binding of the complex to the tissue or the blood cells.

42. (Withdrawn) A molecule that is capable of binding specifically to a peptide according to claims 1.

43. (Withdrawn) A molecule according to claim 36 which is an antibody or a fragment hereof.

44. (Withdrawn) A molecule that is capable of blocking the binding of a molecule according to claim 42 or 43.

45. (Withdrawn) A method of treating a cancer disease, the method comprising administering to a patient suffering from the disease an effective amount of the composition according to claim 25, a molecule according to claim 42 or a molecule according to claim 44.

46. (Withdrawn) A method according to claim 45 wherein the disease to be treated is a cancer disease where survivin is expressed.

47. (Withdrawn) A method according to claim 46 wherein the cancer disease is selected from the group consisting of a haematopoietic malignancy including chronic lymphatic leukemia and chronic myeloid leukemia, melanoma, breast cancer, cervix cancer, ovary cancer, lung cancer, colon cancer, pancreas cancer and prostate cancer.

48. (Withdrawn) A method according to claim 45, which is combined with a further treatment.

49. (Withdrawn) A method according to claim 48 wherein the further treatment is radiotherapy or chemotherapy.

50. (Currently amended) The peptide composition of claim 28 47, wherein the immunogenic composition is a vaccine said peptide is SEQ ID NO:36.